# POWER DOWN PROTOCOL FOR INTEGRATED CIRCUITS

## Abstract of the Disclosure

A system-on-chip (SOC) includes a power down circuit. Within the SOC are several circuit blocks, each of them operating responsive to a local clock

5  signal. A system clock is coupled to the circuit blocks for providing a system clock signal that functions as the local clock signal for selected circuit blocks. A power control manager provides a signal that at least partially determines whether the

10  system clock will act as the local clock for some of the circuit blocks. Within the circuit blocks is a shutdown circuit that selectively prevents the system clock signal from functioning as the local clock signal in those circuit blocks that receive the shutdown

15  signal, but the shutdown circuit only operates after both the signal to shutdown is received from the power control manager and after the circuit block has, in fact, shutdown.